THE RADCO REGISTER

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our unsung heroes who proudly serve the military!



**RADCO NOT SOLD IN FRANCE





DEPLOYING to NTC..?? Get "Appointed" to Avoid Being "DisAppointed" !! Going Outta' Town with Your MC-1..?? Follow these 4 - Easy Steps for **Deploying your Tester.** From Confusion..to SIM-plicity..!! Introducing RAD-SIM..!! **KUDOS for our GUARD RSOs.** The Dosimetry Program "Posse" has Arrived..!! HEY, Dosimetry Custodians..!! DON'T BOGART That Form, My Friend... PASS IT OVER TO ME..!!! Maintain Your Chemical Detectors "Mission Possible" NOT "Mission Impossible"...!!! (page 13) **QUICKIE QUIZ** It's Outta' the Question! ...w/Burt "the answer man" NON-IONIZING CORNER.... page 11 Don't Cook Tonight...Make Sure Your Waveguides are Tight..!! PUZZLES & BRAINTEASERS (solutions) page 13 **QUICKIE QUIZ**

The distribution and content of this newsletter is directed to Army National Guard activities for which the U.S. Army Communications-Electronics Command (CECOM) Directorate for Safety, Radiological Engineering Division, serves as RSSO. The RADCO Register is published quarterly and is intended as a medium for the exchange of radiation safety information between CECOM and the National Guard Bureau. The primary distribution of this newsletter is to Occupational Health/State Safety Offices, U.S. Property & Fiscal Offices, and Combined Support Maintenance Shops, with local reproduction encouraged.

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ON GUARD...

DEPLOYING TO NTC?? Get "Appointed" to Avoid being "DisAppointed" !!

Is your unit planning to deploy to the National Training Center (NTC) at Fort Irwin, California? Well, before you pack up the

sunscreen and those desert fatigues, there are a few items

order to comply with the Fort Irwin NTC Radiation Safety Program (RSP). In the past, there have been numerous incidents involving the poor accountability of radioactive commodities as well as an overall lack of emergency preparedness by some of the deployed units. As a result,

the following requirements

are in effect:

for units training at Fort Irwin

that have to be addressed in

Any unit transporting radioactive material to NTC must have a Unit Radiation Safety Officer (URSO) appointed on orders. A copy of the appointment orders must be forwarded to the NTC and Fort Irwin Installation Radiation Safety Officer, (IRSO) Mr. Daniel Orta, 30 days prior to

reporting. He can be reached at that proper control and DSN 470-6982, COM 760-380- accountability procedure implemented and follow maintain strict control at that proper control and accountability procedure implemented and follow maintain strict control at that proper control and accountability procedure implemented and follow maintain strict control at that proper control and accountability procedure implemented and follow maintain strict control and accountability procedure implemented and follow maintain strict control and accountability procedure implemented and follow maintain strict control and accountability procedure implemented and follow maintain strict control and accountability procedure implemented and follow maintain strict control and accountability procedure implemented and follow maintain strict control accountability procedure implemented accountability procedure implemented and follow maintain strict control accountability procedure implemented and follow maintain strict control accountability procedure implemented accountabilit

daniel.orta@irwin.army.mil.

A Rotational Radioactive Material Movement Form (RRMMF) and "Movement of Radioactive Material to NTC" Form must be completed which will serve as an

inventory of all radioactive commodities being brought on site. This form can be found in FORSCOM

Regulation 350-50-1 and can be

obtained upon request. A copy of this form shall be provided to Mr. Orta along with the URSO appointing orders.

To be appointed as the URSO, you must understand and comply with all appropriate radiation safety rules and regulations. Does this mean you need a 40-hour radiation safety course? No, not exactly, but to be appointed as a URSO at NTC, you must be familiar with the basic radiation safety requirements and procedures for the commodities you are responsible for while at NTC.

The URSO, along with the unit commander, will be directly responsible to ensure

that proper control and accountability procedures are implemented and followed to maintain strict control and prevent loss or damage to radioactive items while at NTC. They must also ensure that all unit personnel are trained in proper radiation accident procedures to minimize exposure to personnel and equipment.

It is recommended that at least one URSO be appointed for each battalion that reports for training. Units being sent to augment an existing training force do not require a URSO, but are responsible to forward an RRMMF, along with a complete inventory, prior to their arrival. Upon arriving at NTC, this form shall be provided to the designated URSO for the rotation they are augmenting. If personnel are deployed to NTC and will not be bringing any equipment containing radioactive material, they would not be required to meet the above requirements.

If a battalion is scheduled to go to NTC for training and does not have an individual appointed as URSO, consider sending someone for training or activating someone that is URSO qualified to accompany the battalion and by doing this... you'll avoid being disappointed.

Going Outta' Town with your MC-1...?? Follow these 4 - Easy Steps for Deploying your Tester..!!

Recently, a few engineering units received their marching orders and have deployed overseas. These latest mobilizations have prompted us to relook the requirements for "moving out" with your MC-1 Soils Tester. So here they are:



Where ever the MC-1 Tester goes, so must a **qualified Radiation Safety Officer** (RSO) to accompany it. How does one become qualified? By completing one of the following courses:

- a. Radiological Safety Course, 7K-F3-494-F14, US Army Chemical School,
- b. Operational Radiation Safety Course, 4J-F2-494-F9, US Army Chemical School,
- c. Calibrator Custodian Course, US Army Chemical School and Technical Engineers Course (51T), US Army Engineer Center,
- d. Army National Guard RSO Course, CECOM DS,



- e. USAREUR/7A Local Radiation Safety Officers Course,
- f. Or other training course approved by the TACOM Safety Office.

Prior to being issued your MC-1, a copy of your RSO training certificate was furnished to TACOM where it has remained on file.

Now, should you contact them to let them know you're about to

deploy with the Tester they can verify that your training is up to speed.



ONLY a qualified operator is authorized to use the Tester in the field and the operator's certificate must be on file with TACOM. A qualified operator is one who has attended the Operators training course

conducted by U.S. Army Engineer Center, Ft. Leonard Wood, MO. When the Tester is to be deployed you must provide TACOM with the

name of the operator who will be using the tester at the deployment site. As with the RSO, they will verify that the operator is listed in their database.



Packaging and Shipment. Let's break this down further. (I know we said 4 easy steps

> but we're running into some **potholes** here on Easy Street ©.)

First: Prior to shipping the MC-1, a radiation survey, as well as a contamination survey with a NUCON smear, must be performed on the outside of the shipping container. Send the NUCON wipe to the CECOM Radiological Lab for analysis and don't forget to document the results of both surveys on a Radioactive Material Movement Form (RMMF).

Second: Lets assume that the Tester will be deployed OCONUS and will probably be placed in a CONEX. International shipping requires that the CONEX containing the tester be placarded for Radioactive



Class 7, material. In other words a placard for Class 7-Radioactive Materials must be

placed **on all four sides of the CONEX.** The minimum dimensions for this placard is 250mm x 250mm.

Third: Radioactive

Yellow II labels must be affixed on **two** opposite sides of the CONEX.



NOTE:

As an alternative to using both placards and labels you may enlarge the Yellow II label to the dimensions of the Class 7 Placard (outlined above) and apply the enlarged Yellow II labels to all four sides of the CONEX.

Fourth: If the tester, in its DOT 7A orange container, is placed in an over- pack, the outside of the

over-pack must have 2
Yellow II labels and the
statement "INNER
PACKAGES COMPLY
WITH PRESCRIBED
SPECIFICATIONS" prior to
being placed in the CONEX.
Do not put "USA DOT 7A
Type A" labels on the
CONEX.



Now that we've got you all packed up and ready to go, what are the responsibilities of the RSO once you get to the deployment site?

Surveys, Surveys, and more Surveys: A preplacement radiation survey to

include background readings; an initial survey with the tester(s) in place; semiannual radiation

surveys; and surveys when changes occur to

the MC-1 Tester

Storage Area are all required. All surveys will include a sketch of the storage area and must be performed with an "Active" calibrated

an "Active" calibrated AN/VDR-2 or equivalent survey meter. Surveys consist of only radiation instrumentation readings.

As always, TACOM must be provided a copy of all

surveys with the exception of the routine semi-annual survey.

Dosimetry: As RSO for the MC-1, you already knew that dosimetry is required. Generally the change-out frequency is monthly. However, if you are deploying OCONUS the **change-out frequency is quarterly**.

Annual Leak Test: The leak test determines the condition of the source as well as satisfying the annual inventory requirement. Leak Test of the MC-1 must be performed annually.

Storage Area Postings:

The requirements remain the same:

a. NRC Form 3 will be posted at tester storage areas.

b. A notice will be posted at the tester

storage area of where Title 10 CFR Parts 19, 20 and 21, NRC License and the MC-1 Radiation Safety SOP can be obtained/reviewed.

c. Section 206, Energy Reorganization Act of 1974

(Public Law 93-438) will be posted at tester storage areas.

d. Caution Radioactive Material Signs posted on entrances leading to tester storage areas and on the metal storage containers storing testers in occupied areas.

Installations or activities located where non-English languages are prevalent

should post signs that include a translation into those languages.

Emergencies: Finally, TACOM requires they be contacted immediately if any radiation safety defect or hazard is evident to include incidents/accidents and theft of the Soils Tester.

As you can see, there are many issues that must be resolved prior to deploying your MC-1. Remember that the tester cannot be relocated without receiving prior authorization from TACOM-Warren. For questions or concerns regarding MC-1 safety or movements, contact the TACOM-Warren Safety Office @ DSN 786-7635 / or Commercial (586) 574-7635/

Fax (586) 574-5277.



From Confusion... ...to SIM-plicity Introducing RAD-SIM...!!!

Y ou all know the drill..... endless suspenses, shifting priorities, troop optempo, and to add to all of that.... confusing and sometimes conflicting RSP requirements.

This is the norm in our work environments, and in many instances we are powerless to change those demands placed on us. Isn't there something that can be done to help prioritize and more effectively manage the mountains of information that comes our way? Well, funny you should ask... in the never-ending quest to make your job as state Radiation Safety Officer (SRSO) more bearable, we have decided to do just that! Coming soon, to an email-box bearing your name, will be the first ARNG **Radiation Safety Information** Memorandum (RADSIM).

We, your friendly Radiation Safety Staff Officer (RSSO), will use the RADSIM to convey, in a concise manner, current and/or new radiation safety policies. We're confident that through our RADSIMs we will be able to help everyone manage information required by the Nuclear Regulatory Commission (NRC), the Department of the Army and the National Guard Bureau.

As requirements change due to new NRC licenses,

regulations, etc., we will be able to rescind "old" RADSIMs and replace them with revised ones.

This is how the process will work: we will issue the RADSIM to you, the SRSO. You may print and disseminate it; you may email it to all those personnel to whom it pertains; or you can point them to a website/mailbox where the information resides. We'll leave the decision up to you on how best to get the information to your personnel.

We have one final request, however; we need your input! We have already chosen the topic for the first RADSIM, but if you can think of any subjects that are not clearly stated or often misunderstood (i.e., specific commodity training or leak test requirements, document retention, surveys, etc.), let us know. Send your emails to Hugo Bianchi.... he'll help to de-fuse a confusing issue in one of our future RADSIMs.



KUDOS for our GUARD RSOs



Congratulations are in order for a job well done to all the Guard folks that recently attended our Radioactive Commodity Identification and Transportation (RCIT) Course in Charlotte, North Carolina, as well as the 40-Hour Radiation Safety Officer Course in Orlando, Florida. Students from their respective State Safety Office, USP&FO, CSMS, MATES, and UTES (to name a few), were seen donning their proverbial RSO hats to wander the halls and share some notable camaraderie with their fellow RSOs. Participants learned a lot, studied diligently, and still found time to enjoy

some of that "good 'ole southern hospitality."

Both the instructors and students had a great time and we would like to

now take this opportunity to recognize the top two students from each course that distinguished themselves by achieving the highest final course grades. For the RCIT course, the honors go to Amy Foose from California and to Ronald Murphy of West Virginia. For the RSO course, the honors go to Joseph Paris from Indiana and to Thomas Allen of Montana. A number of others students did an excellent job but fell a point or two short of achieving......

"4-star" recognition ..!!

Keep up the GREAT work..!!

The Dosimetry Program "Posse" Has Arrived!

his piece is for all RSOs and ionizing radiation dosimetry custodians. When AR 40-14 was rescinded, it left many of you out there wandering down a lonesome trail. But the new Customer Handbook, prepared by the U.S. Army Ionizing **Radiation Dosimetry Center** (USAIRDC), has hit the comeback trail and it provides a bounty's worth of useful guidance and information.

This latest version of the Handbook, dated 22 November 2002, hits right on the mark! Not only is it a fountain of information for newly appointed dosimetry custodians but some of you cantankerous cowpokes may also learn a thing or two. A new section on page four called "Beneficial Badge Basics" is very obliging. It outlines the dosimeter mailing/turn-in process and includes the Dosimetry Issue Listing. There are many other topics covered in the thirtyfive page text, including wearing of dosimeters; use of control badges; storage practices; use of required forms; administrative doses and definitions.

If you're not the actual custodian but provide oversight for the dosimetry program, you should also rustle yourself up a copy of the Customer Handbook.

So don't wait for the dust to settle. Download your copy of the handbook from the world-wide web. Just visit the DA RSO Reference Guide website at:

http://www.monmouth.army. mil/rso. After you "enter" the DA RSO website, click on link to "TBs, TMs, TRs and Handbooks," then click on "Handbooks," then click on the "Dosimetry Customer Handbook." Once you've printed the file you'll be blazing a brand new trail to dosimetry success.

This handbook may spark a few questions, but let's not have any shootouts over it..!! Remember you can call any of the "deputy" Health Physicists at CECOM for assistance. You may also use the information on page two of the handbook. It lists telephone numbers at USAIRDC for customer service, technical or

questions, etc.

administrative GIDDY-UP...!!

HEY, Dosimetry Custodians...!! **DON'T BOGART That** FORM, My Friend... **PASS IT OVER** to ME!!!

t's that time of year again! No, not opening day for Major League baseball... It's the time of year when you will be receiving a rather curious looking form in the mail from the Army's Ionizing Radiation Dosimetry Center. But before you go filing it away with the rest of your dosimetry records, you had better take a good look at it.

exposure for the previous calendar year for all personnel enrolled in your dosimetry program. Army Regulation 11-9, The Army Radiation Safety Program, and U.S. Nuclear Regulatory Commission (NRC) Regulation 10 CFR 20, Standards for Protection Against Radiation, **REQUIRE** that a copy of NRC Form 5 be provided to each individual, along with the Annual Automated Dosimetry Report.

You must also be able to document that you provided each person with his or her own copy. We recommend that each individual write the following statement at the bottom of his NRC Form 5,

NPC FORM 5 (6-12) 10 CFR PART 20 OC DOS ACCT CODE - AB 1. NAME (LAST, FIRST, MI	CUPATIONAL EXPO PCR A MONITORI	NG PSRÍOD		ESTIMATED BURDEN PE INFORMATION COLLECT MARD COMMENTS REGIAL FORMATION AND RECOG U.S. NUCLEAR XEGUL 20555, AND TO THE F 00061 OFFICE OF MAN DC 20503.	TION REQUEST: MI ADING BURDEN ESTIMA MOS MANAGEMENT BRAN ATORY COMMISSION, IN PAPERWORK REDUCTION MASSMENT AND BURDEST	NUTES FOR- NUTES FOR- THE IN- CH (MMHH 7714); ASHINGTON, DC 1 PROJECT (3150- , WASHINGTON.
6. MONITORING PERIOD u1/29/99 - 01/01/00	7. LICENSEE NA NO PRIMARY LIC FOR DOS ACCOUN	ME ENSE RECORDED T CODE - AB	BML29010	жимвек (9) 2266	HA. X RECORD ESTIMATE	35. x ROUTINE PSE
10A. RADIONUCLIDE 10B.	INTAKES			5	DOSES (IN REM)	
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20. SIGNATURE :JCENSE	ZB	NRC	FOR		2	1. DATE PREPARED

This is the *NRC Form 5*. "Occupational Exposure Record for a Monitoring Period." This document is a record of the cumulative

"I have received a copy of this Form,."

Have him/her then sign and date it.

After the individual signs and dates the NRC Form 5, place it in his or her individual dosimetry folder, and give a copy to that person. When your Dosimetry Program is reviewed (and it WILL be!) this is one of the items that will be looked at. (An unsigned NRC 5 Form adds up to a deficiency in your RSP.)

So remember, when you see that rather curious looking form show up in the mail...

DON'T BOGART IT...!!

Pass it to the person it was intended for. And should you have any curious questions about the Form, "go ask

Alice" Kearney, of our staff,

(when she's

10 feet tall). © ©



Join your fellow RSO

net surfers at: www.monmouth.army.mil/cecom/safety/rpub/radco.htm where we've posted the last three years of our RADCO Newsletters.

It's hip...

it's cool...

it's RAD..!!!

(Back issues of the RADCO, prior to 1999, are available upon request.)

PUZZLES & BRAIN-TEASERS

QUICKIE QUIZ:

1. Situation: Your unit has an AN/PEQ-2A Target Pointer Illuminator/Aiming Light. You should have a copy of GPM 2002-008 and ensure you understand it! Circle the correct answer.

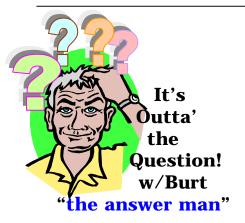
TRUE or FALSE

2. The Density and Moisture Tester (Soil and Asphalt), Model MC-1 is managed by:

- a. AIRDB
- b. SBCCOM
- c. TACOM-W
- d. AMCOM
- 3. Technical Bulletin (TB) MED 521 is very useful if you have x-ray machines in your state. The current version should be dated:
 - a. 18 FEB 1999
 - b. 7 DEC 1941
 - c. 15 JUN 1981
 - d. 26 FEB 2002

- 4. The radiological survey frequency for the MC-1 Nuclear Soil Tester is:
 - a. quarterly
 - b. annually
 - c. semi-annually
 - d. monthly
- 5. The new UN Number for shipping the AN/UDM-2 RADIAC Calibrator Set and the MC-1 Tester is:
 - a. UN 2974
 - b. UN 3333
 - c. UN 3332
 - d. UN 2910





Our question comes from Mr. Marvin Gray out of Grapeville, CA. Marvin writes (or sings):

"Heard it through the grape vine..."

"Anti-RAD pills will make me feel so fine..."

"Marvin, no more please... I get the picture..." (crazy raisin head..!!) ©



Here's my retort for this tart.... this so-called Anti-Radiation pill is nothing more than Potassium Iodide (KI). It's used to prevent thyroid cancer in people who are exposed to Radioactive Iodine caused by nuclear reactor accidents and nuclear bombs. What makes Radioactive Iodine so dangerous is that the body cannot distinguish it from ordinary iodine. KI protects against radioactive iodine by preventing its absorption by the thyroid gland located in the neck. KI saturates the thyroid with stable iodine, shutting off its absorption mechanism. It will

remain long enough for the radioactive iodine that you inhaled or ingested to be safely disbursed through the kidneys and out the body.

Will KI protect me against a "dirty bomb"...?

A "dirty bomb" is a conventional explosive, such as dynamite, salted with radioactive material that scatters when the bomb goes off. Radioactive iodine, against which KI protects, would most likely **not be** present in a "dirty bomb" due to the fact that it is a byproduct of nuclear fission which takes place only within nuclear reactors and during the detonation of a nuclear bomb. Obviously, this type of radioactive material would be very difficult to obtain and incorporate into the makings of a "dirty bomb."

So Marv, there you have it. No pill will fully protect you from the effects of radiation. However, before making a decision to take KI, you should certainly do your homework, or at least check with your physician.

NONI ONI ZI NG CORNER....

Don't Cook Tonight... Make Sure Your Waveguides are Tight..!!

The last time we spoke about radiofrequency (RF) leaks, we looked at the AN/GSC-52 Satellite Communications Terminal. This system pours out a lot of RF power so that our communication signals can reach way up to where the satellites fly around the earth.



The AN/GSC-52 transmits its signal at a frequency of 8-GHz and can put out as much as 8000-watts of power! Now 8,000 watts is no small job! You can get a feel for this by realizing that an electric space heater puts out some 1000 to 1500 watts.

An 8,000-watt space heater could pretty well

"cook" you if you stood right next to

it....and it's not much different if you got near 8,000 watts of RF, if it somehow got loose.

Now the way it works with RF is that the power is produced inside the satellite transmitter. Electromagnetic energy is fed down a line to the antenna, where it's beamed towards the sky. In the space heater, the line that carries the electric power is a set of two electric wires. In an RF system, this power is

carried along by electromagnetic waves. These waves cannot be permitted to spread out randomly into space but must travel confined to the antenna that rests outside the building. This is done by using a series of interconnecting pipes called

"waveguides," and they're not much different from the plumbing pipes that carry water throughout your house. Technically however, waveguide "pipes" are much more sophisticated.

The waveguides utilized in the AN/GSC-52 are

rectangular in shape and are manufactured to very precise inner dimensions. It's the *inside* of the

waveguide that counts because that's where the waves are forced to travel. The outside dimensions don't have to be all that exact.

So how can we get into trouble with waveguides? These tubes are not like plumbing pipes, where the joints are permanently coupled together by soldering. Segments of waveguides in a system can be easily disconnected for maintenance or other reasons. If a waveguide is open somewhere along the line and the system's transmitter is energized, energy in the form of RF radiation (RFR) will start flowing out.

Can all this excess RFR be dangerous...?? Possibly, but we'll need to look up the Permissible Exposure Limits (PELs), which alerts us as to whether this is a safe limit for human exposure to RF. In other words, as long as the exposures are less than the PELs, they won't fry or cook you. Once you look up the PEL for the frequency, you can calculate the density of the RF power that might be coming out of your waveguide. The answer is

based on the cross-sectional area of this waveguide. Your calculations will indicate whether it'll be O.K., or if your cooking up a recipe for trouble.

So, lets run through a practical example. If you're not good with numbers....
GET OUT while YOU STILL CAN.! © Only kidding, a couple of quick conversions and it's really a snap..!!!

Our Communications Terminal is connected to the antenna with a WR112 - type waveguide.



If you look up the waveguide characteristics, you will see that the inside dimensions for the WR112 type waveguide is precisely 28.499mm by 12.624mm (i.e., an approximately 1.1" by 0.5" cross-sectional, waveguide hole). So if you had a waveguide that was left open somewhere along one of the connecting joints, and the power was accidentally turned on (YIKES!!), what power density would come pouring out..???

Here's how you would go about it:

ANSWER:

DoDI 6055.11 Guide entitled "Protection of DoD Personnel from Exposure to RF Radiation and Military Exempt LASERs," tells us that we want to find the RF power density, and to express this in milliwatts per square centimeter. If it's bigger than the PEL value, we gotta watch it... In our example, our power is at worst 8000 watts, which is **8.000.000** milliwatts (there's 1000 milliwatts in every watt). The cross-sectional area of an open waveguide on this system is then 2.85 $cm = 1.26 cm = 3.60 cm^2$ (here we multiplied the length by the width, having changed the mm to cm). So the RF power coming out of the waveguide hole per unit area of the hole (which is what most people call the power density) is just power divided by area, i.e., 8,000,000 milliwatt $3.6 \text{ cm}^2 = 2,220,000$ mw/cm².....

WAY, WAY, bigger than the PEL. From DoDI 6055.11 the PEL is 21.49 mw/cm². (2,220,000 represents a number that is over 100,000 times the allowable exposure limit..!!!)

So there you have it. We've found that an open waveguide could create a *very* unsafe condition!

A little bit of mathematical wisdom will lead you to conclude that if the waveguide were thinner (i.e., the power flowed in a more confined space), then dividing the power by a smaller number gives you a bigger

power density (same power divided by smaller area). Thus, a thinner waveguide, as seen in the above illustration, carrying the RF power to the antenna, would be an even greater hazard than the one we've got $(1" \times 0.5")$.

Well we've hit you with quite a bit of information this time so stick your feet up and take a little breather.

We'll be expanding on this and other RF concepts in the future. Until then, keep all your

waveguides **CAPPED**, and be aware that broken or cracked waveguides can present a *real* hazard!!! Mr. Ken Proctor, of our staff, can be "your guide" when it comes to waveguides.

QUICKIE QUIZ SOLUTIONS:

1. Situation: Your unit has an AN/PEQ-2A Target Pointer Illuminator/Aiming Light. You should have a copy of GPM 2002-008 and ensure you understand it! Circle the correct answer.

TRUE or FALSE

- 2. The Density and Moisture Tester (Soil and Asphalt), Model MC-1 is managed by:
 - a. AIRDB
 - b. SBCCOM
 - c. TACOM-W
 - d. AMCOM
- 3. Technical Bulletin (TB) MED 521, is very useful if you have x-ray machines in your state, the current version should be dated:
 - a. 18 FEB 1999
 - b. 7 DEC 1941
 - c. 15 JUN 1981
 - d. 26 FEB 2002
- 4. The radiological survey frequency for the MC-1 Tester, Density & Moisture Nuclear Method is:
 - a. quarterly
 - b. annually
 - c. semi-annually
 - d. monthly

5. The new UN Number for shipping the AN/UDM-2 RADIAC Calibrator Set and the MC-1 Tester, Density & Moisture Nuclear Method is:

- a. UN 2974
- b. UN 3333
- c. UN 3332
- d. UN 2910

Maintain Your Chemical Detectors "Mission Possible" NOT "Mission Impossible"..!!

Your mission, should you choose accept it, (and we know you will), is to



ensure your Chemical Agent Detectors and Monitors are maintained

in a mission ready status.

The last thing a commander wants to hear when preparing to mobilize is that their equipment is not ready to go. One maintenance function that occasionally gets overlooked is the annual wipe test of the Chemical Agent Detector (M43A1/M8A1) and the Chemical Agent Monitors/Improved Chemical Agent Monitors (CAM/ICAM).

IAW the Equipment Technical Manual and the NRC Radioactive Materials License, this equipment **IS NOT** mission capable if the leak test is allowed to become delinquent. Now is the time to check your equipment to ensure that it is ready when you are called. If there is talk of deployment and your equipment is currently within 6 months of the next wipe test due date, you should consider sending these items to the CSMS and have the wipe performed.

If your CAM/ICAM has not been operated recently (the TM requires weekly operation for 30 minutes), it is suggested that you pull that equipment out and conduct the PMCS as directed by the appropriate level TM. Better to find out it doesn't work now then to discover this when you are instructed to get ready to mobilize.



With continuous longterm mobilizations and deployment of personnel and equipment, it is essential you keep track of the items that are on your property book since equipment is often re-

assigned to active army units. The transfer of M8A1/M43A1s or CAM/ICAMs to another unit, whether within another Guard unit or not, must be completed using proper hand receipt procedures. Do not assume that your equipment will automatically be withdrawn from your property book and entered onto the gaining unit's property book.

As the original owner of this equipment, it is your responsibility to ensure its accountability is maintained until properly removed from your property book. This is required, for example, should your detector be turned-in by the unit it was transferred to.

Units often run into problems when it comes time to retrograde equipment from an overseas deployment back to the States. Transportation Officers require that the Chemical Detector and Monitors have a current wipe test to satisfy the removable contamination requirements for movement of radioactive materials. There are DS/GS maintenance units available in theater that are authorized and capable of performing the required annual wipe test. We recommend that as soon as your unit is notified of your return that you contact the supporting maintenance activity and have them conduct the required wipe

Remember, if the detector or monitor is in tact when presented to the maintenance activity, they can perform the wipe and immediately return the device to its owner. The label on the side of the Monitor or inside the Detector

is your proof that the wipe test has been performed. If you are unable to get the current wipe test performed, you can ship the detectors to your home unit with a transportation wipe test. This should not be the method of choice, but is permissible under international transportation regulations. If you use this method you should also make sure that getting the wipe test done at your CSMS is a priority when you return.

"Mission accomplished ..!"

It's now clear what must be done when your mission involves the mobilization or retrograde of Chemical Detectors. If there are no further questions, this tape will self-destruct after five seconds....

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